

AMENDMENTS TO THE CLAIMS

Applicant amends claim 16. Thus claims 16-22, 24, 27, 28, 30-36 and 38 remain pending upon entry of this amendment. A listing of claims is provided for the convenience of the examiner.

Listing of Claims

1-15 (canceled)

16. (currently amended) A process for stabilizing or preserving a biomolecule comprising the steps of:

- (a) providing a biomolecule immobilized on a surface; and
- (b) covering the surface with a composition comprising:
 - i. at least one non-reducing disaccharide; and
 - ii. at least one protein ~~[[of]]~~ or polypeptide of the LEA class.

17. (previously presented) A process according to claim 16, wherein the non-reducing disaccharide is selected from the group consisting of trehalose (D-glucopyranosyl-D-glucopyranoside), sucrose (β -D-fructofuranosyl- α -D-glucopyranoside), and derivatives thereof.

18. (previously presented) A process according to claim 16, wherein the non-reducing disaccharide is trehalose.

19. (previously presented) A process according to claim 16, wherein the at least one protein or polypeptide of the LEA class has a motif comprising eleven amino acids, which is characterized by the following general formula (SEQ ID NO 1):

(1)-(2)-(3)-(4)-(5)-(6)-(7)-(8)-(9)-(10)-E,
wherein

- (1) signifies K or T,
- (2) signifies A, G, K, M or T,
- (3) signifies R, D, A, E, Q or K,
- (4) signifies E, K or S,
- (5) signifies T, F, Y or A,
- (6) signifies K, R, T or A,
- (7) signifies D, E or Q,
- (8) signifies S, R, Y or K,
- (9) signifies A or T, and
- (10) signifies G, A or R.

20. (previously presented) A process according to claim 16, wherein said at least one protein or polypeptide of the LEA class is of LEA-subclass 3 and further has an amino acid sequence coded by a nucleotide sequence selected from the group consisting of those deposited in GenBank under the accession number AF423069 or S39475.

21. (previously presented) A process according to claim 16, wherein said at least one protein or polypeptide of the LEA class has a motif comprising 11 amino acids, wherein the motif is selected from the group consisting of:

- (a) K-T-A-E-F-R-D-S-A-G-E (SEQ ID NO. 2),
- (b) K-G-Q-E-F-K-E-R-A-G-E (SEQ ID NO. 3),
- (c) K-A-E-E-T-K-Q-R-A-G-E (SEQ ID NO. 4),
- (d) K-M-D-E-T-K-Q-R-A-G-E (SEQ ID NO. 5),
- (e) K-A-R-K-T-K-D-S-A-A-E (SEQ ID NO. 6),
- (f) K-A-K-E-Y-K-D-Y-T-A-E (SEQ ID NO. 7),
- (g) K-A-R-E-T-T-E-K-A-R-E (SEQ ID NO. 8), and
- (h) T-K-D-S-A-A-E-K-A-R-E (SEQ ID NO. 9).

22. (previously presented) A process according to claim 16, wherein said non-reducing disaccharide is present at from 0.01 to 15 weight percent in relation to a ready-to-use solution and said protein or polypeptide of the LEA class is present at from

0.00001 to 1 weight percent in relation to the ready-to-use solution.

23. (canceled)

24. (previously presented) A process for the production of a surface with an immobilized and stabilized or preserved biomolecule, comprising the steps of:

(a) providing a surface with a biomolecule immobilized thereon; and

(b) covering the biomolecule with a composition comprising:

i. at least one non-reducing disaccharide; and

ii. at least one protein or polypeptide of the LEA class.

25 – 26. (canceled)

27. (previously presented) A surface of a material selected from the group consisting of glass, quartz glass, quartz, silicon, polymers, nitrocellulose, nylon and micro fiber membranes, and paper, wherein the surface includes a biomolecule immobilized thereon, covered with a stabilizing or preserving composition comprising:

at least one non-reducing disaccharide; and

at least one protein or polypeptide of the LEA class.

28. (previously presented) A surface according to claim 27, wherein said non-reducing disaccharide is present at from 0.01 to 15 weight percent in relation to a ready-to-use solution and said protein or polypeptide of the LEA class is present at from 0.00001 to 1 weight percent in relation to the ready-to-use solution.

29. (canceled)

30. (previously presented) A surface according to claim 27, wherein the non-reducing disaccharide is selected from the group consisting of trehalose (D-glucopyranosyl-D-glucopyranoside), sucrose (β -D-fructofuranosyl- α -D-glucopyranoside), as well as derivatives thereof.

31. (previously presented) A surface according to claim 27, wherein the non-reducing disaccharide is trehalose.

32. (previously presented) A surface according to claim 27, wherein the at least one protein or polypeptide of the LEA class has a motif comprising eleven amino acids, which is characterized by the following general formula (SEQ ID NO 1):

(1)-(2)-(3)-(4)-(5)-(6)-(7)-(8)-(9)-(10)-E,

wherein

(1) signifies K or T,

(2) signifies A, G, K, M or T,

(3) signifies R, D, A, E, Q or K,

(4) signifies E, K or S,

(5) signifies T, F, Y or A,

(6) signifies K, R, T or A,

(7) signifies D, E or Q,

(8) signifies S, R, Y or K,

(9) signifies A or T, and

(10) signifies G, A or R.

33. (previously presented) A surface according to claim 27, wherein said at least one protein or polypeptide of the LEA class is of LEA-subclass 3 and further has an amino acid sequence coded by a nucleotide sequence selected from the group consisting of those deposited in GenBank under the accession number AF423069 or S39475.

34. (previously presented) A surface according to claim 27, wherein said at least one protein or polypeptide of the LEA class is of LEA subclass 3 and further has a motif comprising 11 amino acids, wherein the motif is selected from the group consisting of:

(a) K-T-A-E-F-R-D-S-A-G-E (SEQ ID NO. 2),

(b) K-G-Q-E-F-K-E-R-A-G-E (SEQ ID NO. 3),

(c) K-A-E-E-T-K-Q-R-A-G-E (SEQ ID NO. 4),

- (d) K-M-D-E-T-K-Q-R-A-G-E (SEQ ID NO. 5),
- (e) K-A-R-K-T-K-D-S-A-A-E (SEQ ID NO. 6),
- (f) K-A-K-E-Y-K-D-Y-T-A-E (SEQ ID NO. 7),
- (g) K-A-R-E-T-T-E-K-A-R-E (SEQ ID NO. 8), and
- (h) T-K-D-S-A-A-E-K-A-R-E (SEQ ID NO. 9).

35. (previously presented) An analytical and/or diagnostic device, comprising a surface as defined in claim 27.

36. (previously presented) A device according to claim 35 selected from the group consisting of biochips, sensor chips, microtiter plates, test tubes and culture dishes.

37. (canceled)

38. (previously presented) A method of analysis and/or diagnosis, comprising the steps of:

- (a) providing a surface according to claim 27; and
- (b) incubating the surface with a sample to obtain an analytical and/or diagnostic result.